

GENERAL CONSTRUCTION NOTES:

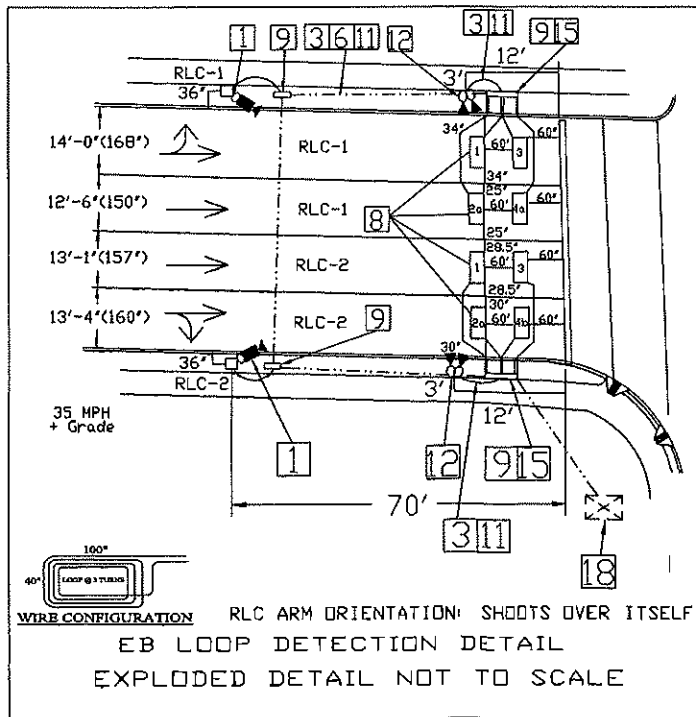
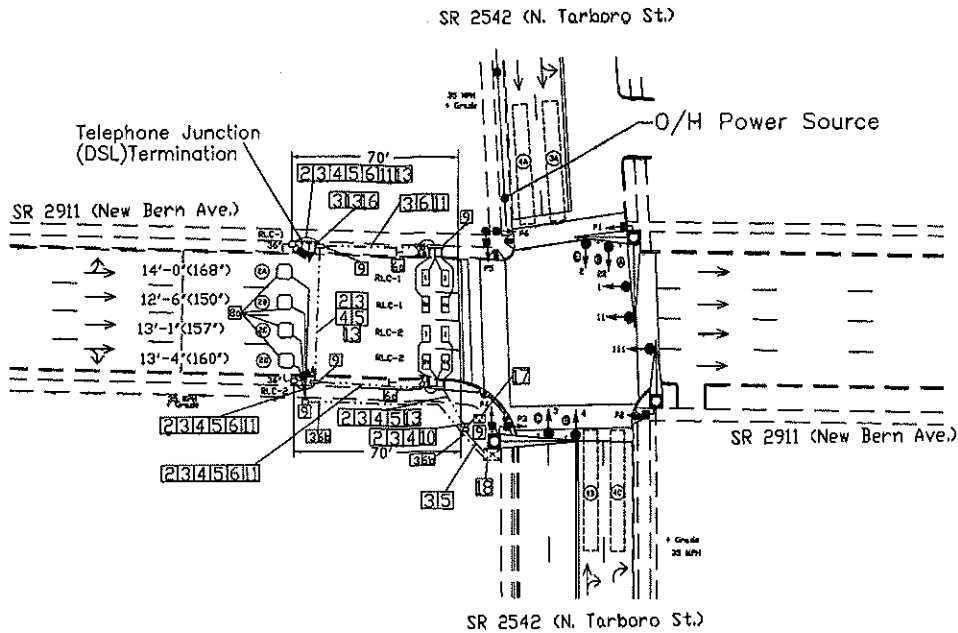
INSTALLATION AND CONSTRUCTION SHALL CONFORM TO THE STATE DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS SECTIONS APPLICABLE AND STANDARD PLANS DATED AND EFFECTIVE FOR THE CURRENT YEAR AND ANY SPECIAL MUNICIPALITY CODE PROVISIONS.

1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IS APPROXIMATE. THE SUBCONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES INCLUDING THOSE NOT SHOWN ON PLANS AND VERIFY ALL JOBSITE CONDITIONS, HAND EXCAVATE FOUNDATION UNTIL CLEAR OF ALL SUBSTRUCTURES AND PROTECT ALL FACILITIES DURING CONSTRUCTION. SUBCONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS FOR UNDERGROUND UTILITY REMOVAL OR LOCATION WITH RESPECTIVE UTILITY OWNERS AS MAY BE REQUIRED SUFFICIENTLY IN ADVANCE TO PREVENT DELAY IN OPERATIONS.
 2. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES ENCOUNTERED IN AREAS WHERE EXCAVATIONS ARE INDICATED AND SHALL REPAIR ANY SUCH DAMAGE AT OWN EXPENSE. WHERE UTILITY LINES MUST BE MAINTAINED UNDER STRUCTURE, THEY SHALL BE PROPERLY SLEEVED THROUGH FOUNDATION.
 3. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF ANY DAMAGE CAUSED BY THEM OR THEIR SUBCONTRACTORS.
 4. THE SUBCONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND NOTIFY ALL UTILITIES AND THE CITY AT LEAST 72 HOURS IN ADVANCE OF CONSTRUCTION.
 5. THE SUBCONTRACTOR IS REQUIRED AND MUST SUBMIT A WEEKLY SCHEDULE PRIOR TO START OF WORK EACH WEEK. (NO EXCEPTIONS)
 6. POLE DETECTOR AND EQUIPMENT LOCATIONS SHALL BE AS DEPICTED ON SITE PLAN. THE SUBCONTRACTOR SHALL VERIFY EQUIPMENT FIELD LOCATIONS WITH THE CITY TRAFFIC ENGINEER OR LOCAL AND/OR EXCAVATION AUTHORITY AND ACS PRIOR TO INSTALLATION.
 7. THE SUBCONTRACTOR SHALL SUPPLY AND INSTALL ALL CONDUCTORS NECESSARY FOR THE INTENDED OPERATION AS NOTED ON THESE PLANS, NEC AND ALL APPLICABLE MUNICIPALITY CODES.
 8. PROVIDE ANCHOR BOLT NUT COVERS FOR ALL STANDARDS.
 9. ALL PULLBOXES AND COVERS SHALL BE CONCRETE OR PVC AS REQUIRED BY THE MUNICIPALITY. ALL PULLBOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED OR REQUIRED BY THE MUNICIPALITY.
 10. ALL CONCRETE FORMS ARE TO BE INSPECTED BY LOCAL AUTHORITIES BEFORE CONCRETE IS PLACED.
 11. THE SUBCONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES DURING TRAFFIC SIGNAL INSTALLATION.
 12. INDUCTIVE LOOPS SHALL BE 40" x 100" OR APPLICABLE (SEE DETAIL IN THE TECHNICAL SPECIFICATIONS) WITH THREE (3) TURNS, UNLESS OTHERWISE SPECIFIED ON PLAN, OF IMSA SPECIFICATION 51-5 XLPE APPROVED LOOP DETECTOR WIRE AND ELASTOMERIC SEALANT, PER LOCAL CODES THE LEAD IN RUNS WILL BE INSTALLED WITH FIVE (5) TURNS PER FOOT INTO THE STUBOUT PER CITY AND DOT STANDARDS. ALL DLS SHALL MEET IMSA SPECIFICATION 50-2. ALL CONDUITS SHALL BE PVC, 2" MINIMUM INSIDE DIAMETER, UNLESS OTHERWISE SPECIFIED ON PLAN.
 13. THERE SHALL BE A MINIMUM OF 36" BETWEEN EXISTING LOOPS AND PROPOSED INDUCTIVE LOOPS.
 14. INDUCTIVE LOOP CABLE INTO NEW NO. 5 PULLBOX SHALL BE THROUGH 2" MINIMUM PVC CONDUIT SPACED 8" APART TO ISOLATE THE SIGNALING AND PREVENT INTERFERENCE.
 15. ALL CUT LINES SHALL HAVE A MINIMUM SPACING OF 12".
 16. ALL INDUCTIVE LOOPS AND CUT LINES SHALL BE PLACED A MINIMUM OF 40" FROM ANY METAL COVERS AND/OR GRATINGS IN ROAD SURFACES.
 17. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND COORDINATION WITH THE SERVING (ELECTRICAL) UTILITY COMPANY AND PAY REQUIRED FEES FOR SERVICE CONNECTIONS.
 18. THE SUBCONTRACTOR TO OBTAIN A NO FEE ENCROACHMENT PERMIT FROM THE CITY PRIOR TO COMMENCEMENT OF WORK. ALL WORK SHALL BE INSPECTED BY CITY FORCES. AT COMPLETION OF PROJECT CONTACT THE CITY TRAFFIC ENGINEER 24 HOURS PRIOR TO COMPLETION OF WORK.
 19. THE SUBCONTRACTOR IS TO BUILD AND MAINTAIN A CONSTRUCTION BARRICADE (ALL NECESSARY LIGHTS, SIGNS, ETC. IF REQUIRED) FOR PROTECTION OF THE PUBLIC AS DIRECTED BY THE LOCAL AUTHORITIES.
 20. ALL SUBCONTRACTORS TO PROVIDE LIABILITY INSURANCE AND WORKERS COMPENSATION BENEFITS IN ACCORDANCE WITH STATE LAW FOR ALL WORKERS AND AGENTS WHO WILL BE ON THE SITE AT ANY TIME WHILE PERFORMING WORK ON THIS PROJECT.
 21. ALL WORK SHALL BE IN ACCORDANCE WITH NEC, ALL LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND ANY APPLICABLE AMENDMENTS.
 22. ALL DEBRIS, EXCESS MATERIAL, ETC. IS TO BE REMOVED BY THE SUBCONTRACTOR BY THE END OF THE JOB. JOB TO BE LEFT SUFFICIENTLY CLEAN AS TO WARRANT CITY APPROVAL.
 23. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, FEES AND INSPECTIONS AS MAY BE REQUIRED FOR COMPLETION OF THE JOB AS PER ALL GOVERNING AGENCIES.
 24. THE SUBCONTRACTOR TO PROVIDE COST ESTIMATE FOR ALL WORK SHOWN ON DRAWINGS AND WORK NORMALLY REQUIRED TO CARRY OUT THE DESIGN INTENT OF THESE DRAWINGS.
 25. DRAWINGS ARE NOT TO BE SCALED. WORK SHALL BE GOVERNED BY DIMENSION ONLY. DISCREPANCIES BETWEEN THE DRAWINGS AND/OR THE EXISTING SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF ACS IMMEDIATELY.
 26. RLC EQUIPMENT SHALL NOT BE INSTALLED ON MEDIANS LESS THAN FIVE FEET (5') IN WIDTH.
 27. RLC RELATED EQUIPMENT SHALL NOT BE INSTALLED WITHIN FIVE FEET (5') OF FIRE HYDRANT.
 28. RLC RELATED EQUIPMENT SHALL NOT BE INSTALLED WITHIN FOUR FEET (4') OF ADA RAMPS.
 29. SUBCONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS TO ACS ENGINEERING DEPARTMENT WITHIN THIRTY (30) DAYS OF CONSTRUCTION COMPLETION.
 30. SUBCONTRACTOR SHALL COMPLETE A "RLC POST CONSTRUCTION INSTALLATION ACCEPTANCE FORM" FOR EACH RLC INSTALLED. COMPLETED FORMS SHALL BE FORWARDED TO ACS CONSTRUCTION DEPARTMENT.
 31. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE RESPECTIVE OWNERS AND OTHER AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- CONTACT:

- GAS COMPANY
- WATER DISTRICT
- PHONE COMPANY
- CABLE COMPANY
- LOCAL AND/OR STATE EXCAVATION AUTHORITY

SPECIFIC CONSTRUCTION NOTES:

1. THE SUBCONTRACTOR SHALL INSTALL ALL SUBSTRUCTURES ACCORDING TO LOCAL GOVERNING AGENCY FROST LINE REQUIREMENTS WHERE APPLICABLE.
2. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING PHOTO ENFORCEMENT SIGNAGE PER CITY STANDARDS.
3. THE SUBCONTRACTOR SHALL SUPPLY AND INSTALL "TRANSPO, INC." BREAKAWAY BOLTS ONTO 1" ABS. THREADED BOLT SHALL NOT PROTRUDE MORE THAN 1-1/2" ABOVE FINISHED CONCRETE SURFACE.
4. PULLBOX COVERS SHALL HAVE MARKING "TRAFFIC SIGNAL".



LEGEND		
PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	
	Sign	
	Pedestrian Signal Head	
	Signal Pole with Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Siderail Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
	Right of Way with Marker	
	Directional Arrow	
	Pavement Marking Arrow	
	Right Arrow "ONLY" Sign (R3-SR)	
	Combined Through and Right Arrow Sign (R3-6R)	
	Through Arrow "ONLY" Sign (R3-SR)	
	Combined Through and Left Arrow Sign (R3-6L)	
	"NO TURN ON RED" Sign (R10-1D)	

Signal Upgrade

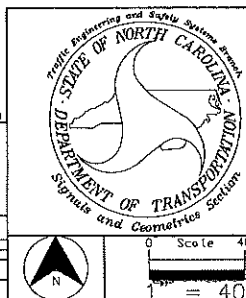
Prepared in the Offices of:



ACS STATE AND LOCAL SOLUTIONS
PUBLIC SAFETY SOLUTIONS
1440 N. UNIVERSITY BLVD., SUITE 200
SCOTTSDALE, AZ 85260
TEL: 480-343-1171 FAX: 480-343-1172

RED LIGHT PHOTO ENFORCEMENT PLAN
CITY OF RALEIGH
EB, NEW BERN AVE & TARBORO

SHEET 1 OF 2
DATE: 04-16-04
PREPARED BY: [Signature]
REVIEWED BY: [Signature]



SR 2911 (NEW BERN AVE.)
AT
SR 2542 (N. TARBORO STREET)

DIVISION 05 WAKE COUNTY RALEIGH
Plan Date: 04-16-04 Reviewed by: [Signature]
Prepared by: [Signature] RKA Proj. No.: 04052 (040)
REVISIONS: [Table with columns for Revision, Date, and Description]

SEAL
4/28/04
SIGNATURE: [Signature] DATE: 4/28/04
SIG. INVENTORY ID: 05-0102

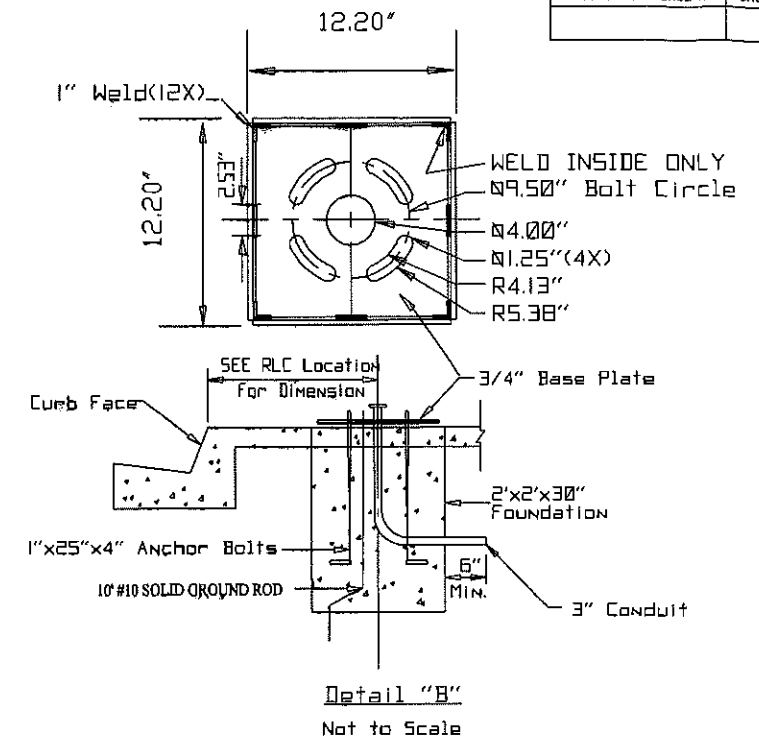
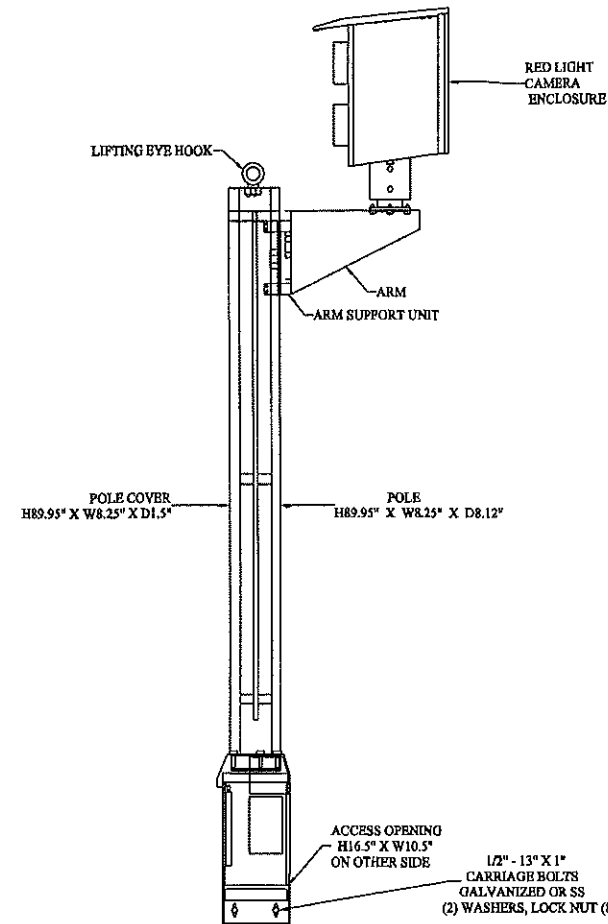
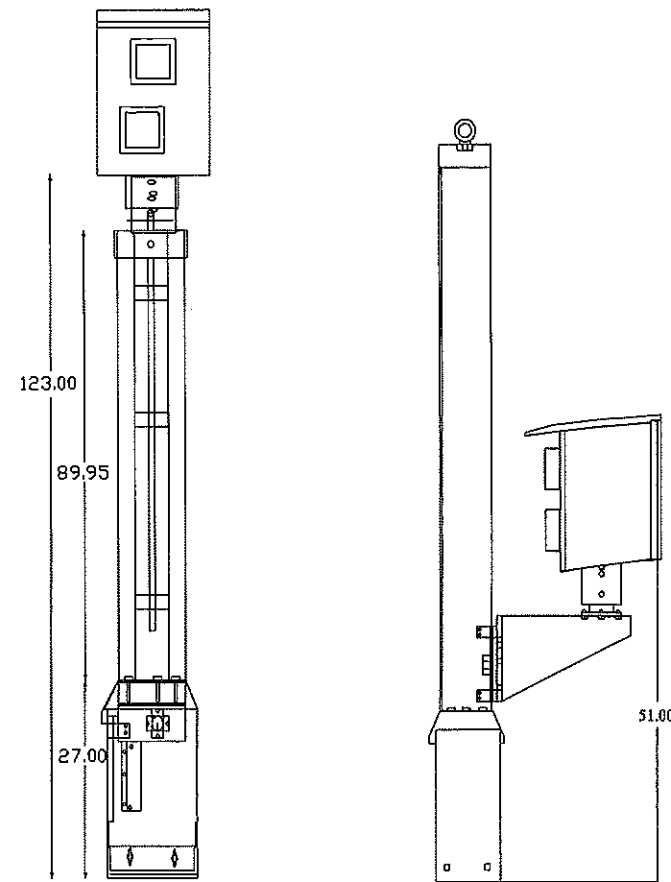
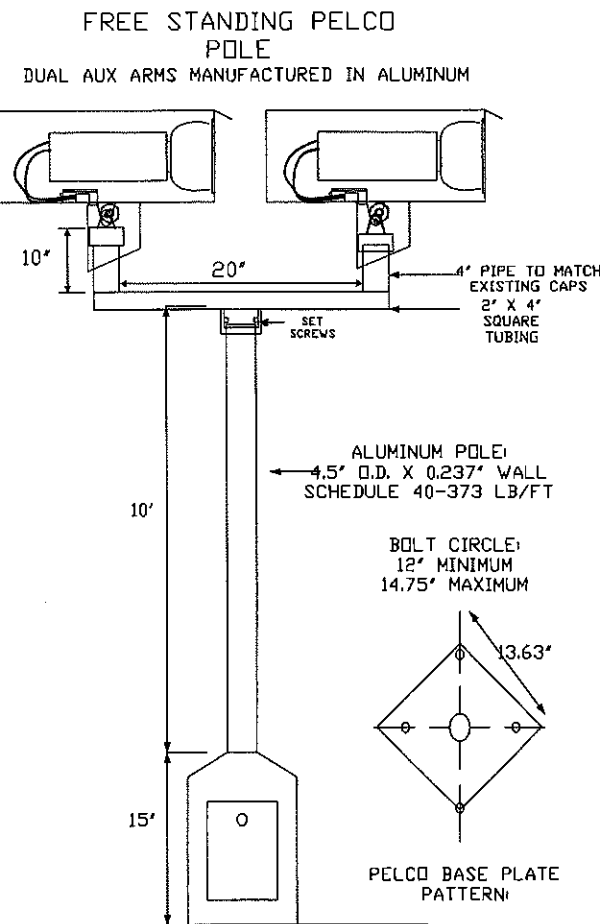
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		1	2
F.A. PROJ. NO.			
PROJECT ID NO.			

LEGEND

- NO. 5 PULLBOX
- POWER PEDESTAL
- VIDEO DETECTION CAMERA
- RLC POLE ASSEMBLY
- AUXILIARY FLASH ASSEMBLY

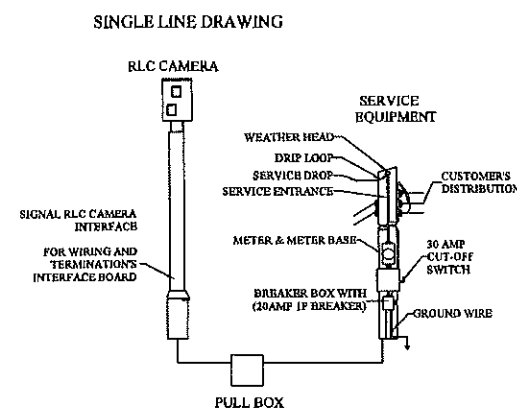
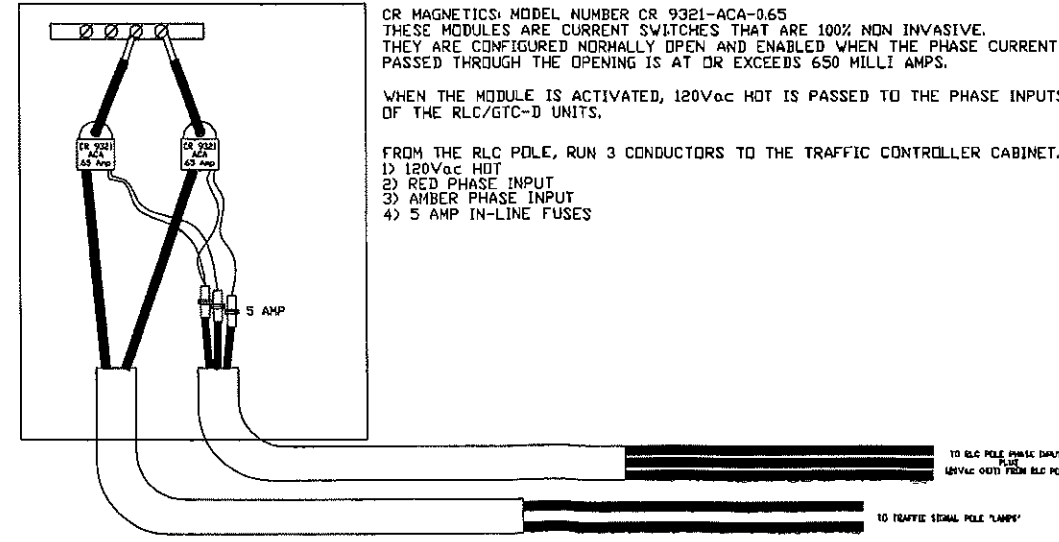
CONSTRUCTION LEGEND:

1. ACS TO PROVIDE POLE CAMERA UNIT. SUBCONTRACTOR TO PROVIDE 2' x 2' x 30' PCC FOUNDATION. SUBCONTRACTOR SHALL INSTALL 4" CAP AT LEAST 30" WIDE. POLES SHALL BE 36" MIN. FROM CURB FACE UNLESS OTHERWISE NOTED ON DRAWING.
NOTE: INSTALL TO LOCAL & NEC SPECIFICATIONS, 10' GROUND ROD AND # 10 SOLID GROUND WIRE TO EACH CAMERA POLE FRAME AS EQUIPMENT BOND. SUBCONTRACTOR SHALL SUPPLY & INSTALL TRANSPD # 4100 BREAK AWAY BOLTS. SUBCONTRACTOR SHALL SUPPLY CEMENT CAP AT BASE OF POLE.
2. INSTALL 3 # 10 THW CABLING FOR 120 VAC POWER. COLOR CODE BLACK, WHITE & GREEN.
3. INSTALL 2" PVC CONDUIT PER CITY SPECIFICATIONS, STUB INTO NEW OR EXISTING PULL BOX.
4. CONNECT 3 WIRE CIRCUIT TO CONTROLLER OR TRAFFIC SIGNAL POLE ON SEPARATE 20 AMP CIRCUIT BREAKER FOR 120 VAC POWER. ROUTE TO ALL RLC CAMERAS.
5. INSTALL 3 CONDUCTOR # 14 SHIELDED CABLE FOR 120 VAC RED AND YELLOW PHASE CONTROL. ROUTE FROM RLC CAMERA TO TRAFFIC SIGNAL POLE TAP BOX. REFER TO CR 9321 MAGNETIC MODULE WIRING DETAIL ON SHEET 2.
6. INSTALL (4) 2 CONDUCTOR SHIELDED DLS WITH DRAIN WIRE: IMSA 50-2, 12 AWG CABLING TO EACH ACS POLE. (4 EACH CABINET)
- 6a. MOVE "Tarboro Center" SIGN BEHIND RLC #1 AND "MLK Memorial Garden" SIGN BEHIND RLC #2.
- 6b. INSTALL (4) 2 CONDUCTOR SHIELDED DLS WITH DRAIN WIRE: IMSA 50-2, 12 AWG CABLING TO CABINET VIA SEPARATE 2" CONDUIT FOR 6'x6' LOOP DETECTORS.
7. INSTALL LOOP STUB OUT TO PULL BOX. EACH LOOP LEAD WIRE SHALL BE CUT IN SEPARATE CHANNELS TO STUB OUT.
8. INSTALL (8) LOOP DETECTORS: IMSA 51-7, 14 AWG CABLING.
- 8a. INSTALL (4) 6'x6' LOOP DETECTORS: IMSA 51-7, 14 AWG CABLING.
9. INSTALL NEW PULL BOX. ALL PULL BOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED ON DRAWING.
10. INSTALL IN-LINE FUSE HOLDERS RATED AT 20 AMPS FOR POWER. INSTALL IN-LINE FUSE HOLDERS RATED AT 5 AMPS FOR PHASE CONDUCTORS.
11. INSTALL 3 PAIR # 14 THW AND 6 PAIR IMSA 59-2, #22 AWG FOR AUXILIARY FLASH POWER AND TRIGGERING FOR EACH AUXILIARY FLASH UNIT.
12. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND INSTALLING 9' AUXILIARY FLASH POLE. INSTALL PELCO TYPE 1A FOOTING WITH A 12" BOLT CIRCLE FOR FLASH POLE.
NOTE: INSTALL TO LOCAL & NEC SPECIFICATIONS, 10' GROUND ROD AND # 10 SOLID GROUND WIRE TO EACH AUX FLASH POLE FRAME AS EQUIPMENT BOND. SUBCONTRACTOR SHALL SUPPLY & INSTALL TRANSPD # 4100 BREAK AWAY BOLTS. SUBCONTRACTOR SHALL SUPPLY CEMENT CAP AT BASE OF POLE.
13. INSTALL 6 PAIR IMSA 59-2, # 22 AWG FOR RLC ROUTER INTERFACE CABLE. ROUTE FROM TELEPHONE JUNCTION BOX TO EACH GTCD POLE.
14. SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND INSTALLING NEW OVERHEAD WIRING AND LASSING.
15. SPlice & SOLDER LOOP DETECTOR LEAD INS TO DLS CABLES AND INSTALL 3M COUPLERS OR EQUIVALENT IN THE PULL BOX.
16. TELEPHONE ISDN TERMINATIONS.
17. INSTALL POWER PEDESTAL TO DOT SPECIFICATIONS. POWER PEDESTAL LOCATION TO BE DETERMINED BY SERVICE PLANNER.
18. INSTALL CR 9321 MAGNETIC MODULE AT TRAFFIC SIGNAL CONTROLLER CABINET. SEE CR 9321 WIRING DIAGRAM ON SHEET 2. INSTALL 3 # 10 THW CABLING FOR 120 VAC POWER FOR MAGNETIC SWITCH. COLOR CODE BLACK, WHITE & GREEN.

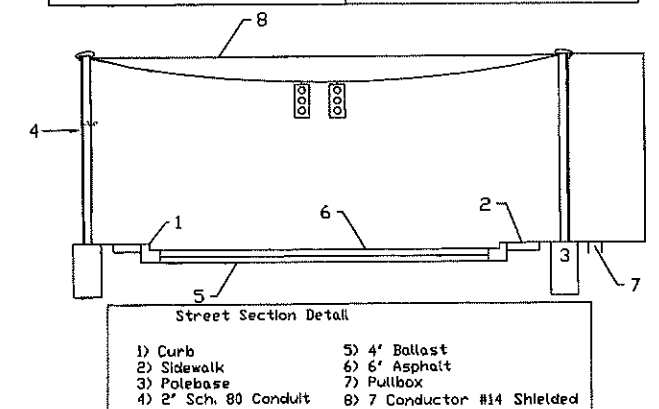
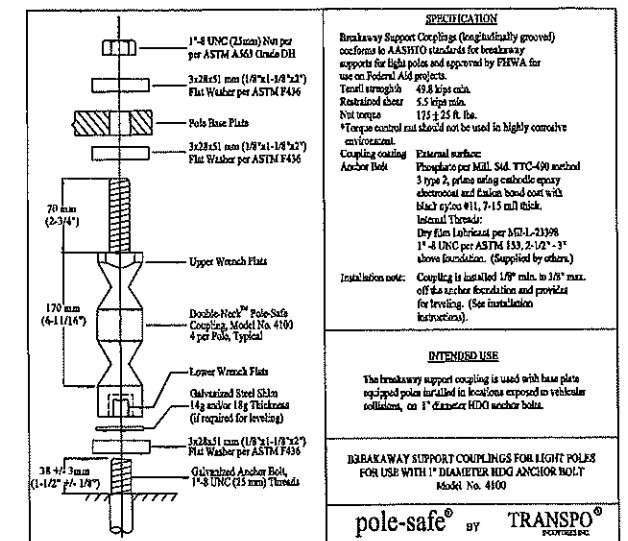


RLC MECHANICAL MOTORIZED POLE DETAIL

CR 9321 MAGNETIC MODULE WIRING DETAIL



1. The pole diameter shall be at least six (6) inches at its smallest dimension. The setting depth shall be five (5) feet minimum for poles thirty (30) feet tall or less. Poles between thirty (30) and fifty (50) feet tall shall have a setting depth of seven (7) feet. Contact the company for the setting depth of poles taller than (50) feet.
2. The height of the pole must be such that minimum required clearance for company and customer conduits are maintained.
3. The customer owned pole must be approved by the company prior to upgrading service.
4. Service entrance conductors where entering and exiting the meter base shall have watertight connectors.
5. The center of the meter shall be no lower than four (4) feet or higher than six (6) feet (5 feet preferred) above final grade or final grade of the traveled surface.
6. A clear space shall be maintained.



Signal Upgrade

Prepared in the Offices of:



SR 2911 (New Bern Ave)
at
SR 2542 (N. Tarboro St)

Division 05 Wake County Raleigh

PLAN DATE REVIEWER BY: RJA PROJ. NO. 04052 (040)

PREPARED BY: DATE:

REVISIONS: DATE:

SIGNATURE: DATE:

ACS STATE AND LOCAL SOLUTIONS
PUBLIC SAFETY SOLUTIONS

RED LIGHT PHOTO ENFORCEMENT PLAN
CITY OF RALEIGH
EB, SR 2911 (New Bern) & Tarboro

Scale: NONE
SHEET 2 OF 2

SEAL
4/28/04
SIGNATURE: DATE:
SIG. INVENTORY NO. 05-0102